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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
KANG, INSUN	

ART UNIT	PAPER NUMBER
2124	

DATE MAILED: 07/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/773,118	MADDOCKS ET AL.	
	Examiner	Art Unit	
	Insun Kang	2124	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-38 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-38 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This action is responding to amendment filed 4/29/2004.

2. As per applicant's request, independent claims 1, 14 and 23 have been amended and claims 31-38 have been added. Claims 1-38 are pending.

Specification

3. The objection to the abstract has been withdrawn due to the amendment to the specification.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-3, 5-8, 10, 11, 13-16, 18-20, 22-24, 26-28 and 30-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weinberg et al. (US Patent 6,587,969), hereinafter referred to as "Weinberg," in view of Applicant's Admitted Prior Art (hereinafter referred to as "APA") disclosed in the instant application.

As per claim 1:

Weinberg discloses:

-an apparatus for providing a graphical user interface (GUI) comprising: logic configured to execute GUI generation code and GUI user interaction handling code; and

a display device in communication with said logic ("Each node in the tree is generated when a GUI structure is passed to or from the transactional server. The nodes are added to the tree and...displayed as the recording proceeds," col 21, lines 35-65; "One inventive feature of the testing tool involves displaying the test to the user as a hierarchical node structure, such as a tree, in which steps of the test are represented as corresponding nodes. Preferably, each node is displayed as an icon that indicates the type of the step, together with a textual step name or annotation. To edit the test, the user can select a node from the node structure to view and edit the node's properties," col 2, lines 40-56);

-wherein when said logic executes the GUI generation code, a first window is displayed on the display device, said first window presenting at least one option that enables a user to open a file comprising execution results resulting from execution of a machine control sequence (see the Execution Log in table 1 (col 8); "As the testscript lines are executed, the screens returned by the transactional servers are preferably stored for subsequent viewing, and the execution results (e.g., results of verification steps) are written to the execution log and the results spreadsheet, as appropriate. The test results may alternatively be buffered in memory, and written to the appropriate file(s) only after the test has completed. In one embodiment, the execution log is generated and displayed during the execution process," col 23, lines 10-38; "an execution log 69 stores additional results of the most recent test execution, and is used to generate and display the results tree," col 22, lines 15-21),

Weinberg does not explicitly teach *machine control sequence configured to move*

data storage media to and from a media interface as claimed. APA discloses that it was known in the art of software development and testing, at the time applicant's invention was made, to "cause robotics and drives to perform various operations (page 1 lines 10-20)" such as moving tapes to and from drives in order to store backup data from servers on the tapes, in backup storage systems (page 1 lines 10-20). It would have been obvious for one having ordinary skill in the art of computer software development and testing to modify Weinberg's disclosed GUI testing tool to use machine control sequence configured to move data storage media to and from a media interface disclosed in APA for the purpose of testing data storage operations involved with a system disclosed by Weinberg in a GUI environment. The modification would be obvious because one having ordinary skill in the art would be motivated to test data storage operations of a system, using the GUI testing tool for a user-friendly form to view and analyze the operation scripts and the execution results, to ensure proper operations of storing backup data from servers (APA, page 1 lines 10-20) in the case of accidental file deletion or system failure.

-wherein when said file is opened, a second window is displayed on said display device, said second window displaying at least a summary of said execution results comprised in said file (See the displayed Execution Log window in Fig 3A, 4A, and 5F; "FIG. 5F illustrates the execution summary that is provided in a web-based implementation of the testing tool. The execution summary includes a tree representation ... or "report tree" of the test execution in the left pane of the screen," col 17, lines 1-45; see also col 3, lines 11-44; col 11 lines 33-50) as claimed.

As per claim 2, the rejection of claim 1 is incorporated. Weinberg further discloses that *said first and second windows are displayed on the display device as active portions within a third window such that said first and second windows are simultaneously and fully viewable by a user* ("The captured screens are further represented in the tree window ... as respective icons and annotations (211 and 218 in FIG. 2). During editing of the test, the captured screens are preferably displayed in the capture window ... in an active format which permits the user to select fields and other elements of the screens," col 11, lines 15-24; The testing tool presents these captured screens in an Active Screen.TM. format that allows the user to select objects and assign properties to objects within a screen. The Active Screen format preferably allows the user to manipulate an object on the screen (e.g., a text area) to modify properties that are associated with the object," col 12, lines 16-36) as claimed.

As per claim 3, the rejection of claim 1 is incorporated. Weinberg further discloses that *said summary includes information summarizing an entire run of said machine control sequence, said run corresponding to one or more iterations of said machine control sequence* ("Each iteration of the test and the associated steps are presented as nodes of the tree 84. For example, the first test iteration is represented by a first node 81, and details of this iteration can be viewed by expanding this node 81.... The summary page includes the date/time of execution and a summary table 82. Each column in the table 82 corresponds to a screen request or a check, and each row of the

table 82 corresponds to an iteration of the test," col 17, lines 1-50; see also Table 4) as claimed.

As per claim 5, the rejection of claim 3 is incorporated. Weinberg further discloses that *said second window displays, in addition to said summary, detailed information describing each command executed during at least one of said iterations* ("Results of verification steps are also preferably represented graphically within the report tree... If the test was executed multiple times with different data sets, each iteration is preferably represented within the report tree by a corresponding node (together with a graphical indication of pass/fail status) which can be expanded to view the details of the iteration," col 3, lines 29-44; see also col 17, lines 1-50; col 22, lines 22-36 and 55-67) as claimed.

As per claim 6, the rejection of claim 5 is incorporated. Weinberg further discloses that *said detailed information includes a start time and an end time associated with execution of each command executed during said at least one of said iterations* (see Table 4 and 5 (execution log); "The right pane of the execution summary screen displays the report details (preferably as HTML pages) corresponding to the currently-selected node of the report tree ... When the user selects the root node of the tree a results summary page is displayed in the right pane as shown in FIG. 5F. The summary page includes the date/time of execution and a summary table 82," col 17, lines 20-33) as claimed.

As per claim 7, the rejection of claim 5 is incorporated. Weinberg further discloses that *said detailed information includes information defining the iteration associated with the displayed command* ("If the test was executed multiple times with different data sets, each iteration is preferably represented within the report tree by a corresponding node (together with a graphical indication of pass/fail status) which can be expanded to view the details of the iteration," col 3, lines 29-44; "The execution summary includes a tree representation 84 or "report tree" of the test execution in the left pane of the screen. Each iteration of the test and the associated steps are presented as nodes of the tree 84. For example, the first test iteration is represented by a first node 81, and details of this iteration can be viewed by expanding this node 81," col 17, lines 1-19) as claimed.

As per claim 8, the rejection of claim 5 is incorporated. Weinberg further discloses that *said detailed information includes a step associated with the displayed command* ("Each iteration of the test and the associated steps are presented as nodes of the tree 84. For example, the first test iteration is represented by a first node 81, and details of this iteration can be viewed by expanding this node 81.... The summary page includes the date/time of execution and a summary table 82. Each column in the table 82 corresponds to a screen request or a check, and each row of the table 82 corresponds to an iteration of the test," col 17, lines 1-50; see also Table 4) as claimed.

As per claim 10, the rejection of claim 5 is incorporated. Weinberg further discloses that *said detailed information includes information indicating whether or not the displayed command was successfully executed* ("In one embodiment, special status icons (e.g., a caution symbol) are used to indicate that an error, such as a failed verification step, occurred at lower level of the tree," col 16, lines 60-67; "The final execution log step (step 63) associated with the illustrated verification step 55 indicates a result of the verification step, which is a "verification passed" statement in this example... every step of the execution log that is successfully completed has a check mark as part of the corresponding icon. Steps that are not successfully completed have a cross mark as part of the associated icon," col 19, lines 12-31; see also col 3, lines 29-44; col 17, lines 8-45) as claimed.

As per claim 11, the rejection of claim 1 is incorporated. Weinberg further discloses that *said second window displays a unique iteration number identifier for each of said one or more iterations, each said iteration number identifiers uniquely identifying a particular iteration of said machine control sequence, and wherein when a user selects one of said unique iteration number identifiers, detailed information describing each command executed during the iteration associated with the selected iteration number identifier is displayed on said display device* ("After the first iteration, the breaker with an iteration number that is one less than the number of the current iteration of the test case is located before data is sent," col 24, lines 57-67 and Fig 5F) as claimed.

As per claim 13, the rejection of claim 1 is incorporated. Neither Weinberg nor APA explicitly discloses that the GUI generation code and the GUI user interaction handling code are written in an object-oriented, platform-independent language.

However, Official Notice is taken that it was well known that the GUI generation code and the GUI user interaction handling code are written in an object-oriented, platform-independent language such as Java at the time applicant's invention was made for the purpose of portability.

Therefore, it would have been obvious to a person of ordinary skill in the art to use an object-oriented, platform-independent language such as Java (Applet, Swing) to write the GUI generation code and the GUI user interaction handling code in the testing tool of Weinberg and APA so that the tool can be portable over heterogeneous operating environments. The modification would be obvious because Weinberg's method can produce a cross-platform GUI testing tool that generates low-level execution results in an easy form to view and analyze.

As per claims 14-16, 18-20 and 22, they are the method versions of claims 1-3, 5-7 and 10, respectively, and are rejected for the same reasons set forth in connection with the rejection of claims 1-3, 5-7 and 10 above.

As per claims 23, 24, 26-28 and 30, they are the computer program versions of claims 1, 3, 5-7 and 10, respectively, and are rejected for the same reasons set forth in connection with the rejection of claims 1,3, 5-7 and 10 above.

Per claim 31:

Weinberg discloses:

-a processor configured to execute logic configured to generate a graphical user interface (GUI) ("Each node in the tree is generated when a GUI structure is passed to or from the transactional server. The nodes are added to the tree and...displayed as the recording proceeds," col 21, lines 35-65)

-logic configured to interact with at least one human to machine interface, and logic configured to generate commands applied to control systems within one or more remote devices ("the user interacts with the transactional server through the user interface of the testing tool to perform the various user steps of the business process," col. 8 lines 39-53)

-a display device in communication with said processor, wherein when said processor executes the logic configured to generate the GUI, a first window is displayed on the display device, said first window presenting at least one option that enables a user to open a file comprising a machine control sequence (see the Execution Log in table 1 (col 8); "As the testscript lines are executed, the screens returned by the transactional servers are preferably stored for subsequent viewing, and the execution results (e.g., results of verification steps) are written to the execution log and the results spreadsheet, as appropriate. The test results may alternatively be buffered in memory, and written to the appropriate file(s) only after the test has completed. In one embodiment, the execution log is generated and displayed during

the execution process," col 23, lines 10-38; "an execution log 69 stores additional results of the most recent test execution, and is used to generate and display the results tree," col 22, lines 15-21),

Weinberg does not explicitly teach *machine control sequence configured to move data storage media to and from a media interface* as claimed. APA discloses that it was known in the art of software development and testing, at the time applicant's invention was made, to "cause robotics and drives to perform various operations (page 1 lines 10-20)" such as moving tapes to and from drives in order to store backup data from servers on the tapes, in backup storage systems (page 1 lines 10-20). It would have been obvious for one having ordinary skill in the art of computer software development and testing to modify Weinberg's disclosed GUI testing tool to use machine control sequence configured to move data storage media to and from a media interface disclosed in APA for the purpose of testing data storage operations involved with a system disclosed by Weinberg in a GUI environment. The modification would be obvious because one having ordinary skill in the art would be motivated to test data storage operations of a system, using the GUI testing tool for a user-friendly form to view and analyze the operation scripts and the execution results, to ensure proper operations of storing backup data from servers (APA, page 1 lines 10-20) in the case of accidental file deletion or system failure.

Per claim 32:

The rejection of claim 31 is incorporated. Weinberg further discloses the selection of which executes the machine control sequence (see the Execution Log in table 1 (col 8);

"As the testscript lines are executed, the screens returned by the transactional servers are preferably stored for subsequent viewing, and the execution results (e.g., results of verification steps) are written to the execution log and the results spreadsheet, as appropriate. The test results may alternatively be buffered in memory, and written to the appropriate file(s) only after the test has completed. In one embodiment, the execution log is generated and displayed during the execution process," col 23, lines 10-38; "an execution log 69 stores additional results of the most recent test execution, and is used to generate and display the results tree," col 22, lines 15-21) as claimed.

Per claim 33:

The rejection of claim 32 is incorporated. Weinberg further discloses

- when said file is opened, a second window is displayed on said display device, said second window displays data resulting from the execution of the machine control sequence (See the displayed Execution Log window in Fig 3A, 4A, and 5F; "FIG. 5F illustrates the execution summary that is provided in a web-based implementation of the testing tool. The execution summary includes a tree representation ... or "report tree" of the test execution in the left pane of the screen," col 17, lines 1-45; see also col 3, lines 11-44; col 11 lines 33-50) as claimed.

Per claim 34:

The rejection of claim 32 is incorporated. Weinberg further discloses

-the data resulting from the execution of the machine control sequence comprises a summary of information from the one or more remote devices(See the displayed Execution Log window in Fig 3A, 4A, and 5F; "FIG. 5F illustrates the execution summary that is provided in a web-based implementation of the testing tool. The execution summary includes a tree representation ... or "report tree" of the test execution in the left pane of the screen," col 17, lines 1-45; see also col 3, lines 11-44; col 11 lines 33-50) as claimed.

Per claim 35:

The rejection of claim 34 is incorporated. Weinberg does not explicitly teach that the one or more remote devices comprise devices configured to house and manipulate data storage media as claimed. APA discloses that it was known in the art of software development and testing, at the time applicant's invention was made, to store backup data from servers on the tapes, in backup storage systems (page 1 lines 10-20). It would have been obvious for one having ordinary skill in the art of computer software development and testing to modify Weinberg's disclosed GUI testing tool to include one or more remote devices configured to house and manipulate data storage media disclosed in APA for the purpose of testing data storage operations involved with a remote system disclosed by Weinberg in a GUI environment. The modification would be obvious because one having ordinary skill in the art would be motivated to test data storage operations of a remote device, using the GUI testing tool for a user-friendly form to view and analyze the operation scripts and the execution results, to ensure proper

operations of storing and manipulating backup data from servers (APA, page 1 lines 10-20) in the case of accidental file deletion or system failure.

Per claim 36:

Weinberg discloses:

-generating a graphical user interface GUI ("Each node in the tree is generated when a GUI structure is passed to or from the transactional server. The nodes are added to the tree and...displayed as the recording proceeds," col 21, lines 35-65)

- having a first window that presents at least one option that enables a user to controllably execute a file comprising a machine control sequence (see the Execution Log in table 1 (col 8); "As the testscript lines are executed, the screens returned by the transactional servers are preferably stored for subsequent viewing, and the execution results (e.g., results of verification steps) are written to the execution log and the results spreadsheet, as appropriate. The test results may alternatively be buffered in memory, and written to the appropriate file(s) only after the test has completed. In one embodiment, the execution log is generated and displayed during the execution process," col 23, lines 10-38; "an execution log 69 stores additional results of the most recent test execution, and is used to generate and display the results tree," col 22, lines 15-21).

Weinberg does not explicitly teach *machine control sequence* configured to direct one or more remote devices to move data storage media to and from a media interface as claimed. APA discloses that it was known in the art of software development and

testing, at the time applicant's invention was made, to "cause robotics and drives to perform various operations (page 1 lines 10-20)" such as moving tapes to and from drives in order to store backup data from servers on the tapes, in backup storage systems (page 1 lines 10-20). It would have been obvious for one having ordinary skill in the art of computer software development and testing to modify Weinberg's disclosed GUI testing tool to use machine control sequence configured to move data storage media to and from a media interface disclosed in APA for the purpose of testing data storage operations involved with a system disclosed by Weinberg in a GUI environment. The modification would be obvious because one having ordinary skill in the art would be motivated to test data storage operations of a system, using the GUI testing tool for a user-friendly form to view and analyze the operation scripts and the execution results, to ensure proper operations of storing backup data from servers (APA, page 1 lines 10-20) in the case of accidental file deletion or system failure.

Weinberg further discloses upon detecting a selection of said at least one option by the user, executing the machine control sequence (see the Execution Log in table 1 (col 8); "As the testscript lines are executed, the screens returned by the transactional servers are preferably stored for subsequent viewing, and the execution results (e.g., results of verification steps) are written to the execution log and the results spreadsheet, as appropriate. The test results may alternatively be buffered in memory, and written to the appropriate file(s) only after the test has completed. In one embodiment, the execution log is generated and displayed during the execution process," col 23, lines

10-38; "an execution log 69 stores additional results of the most recent test execution, and is used to generate and display the results tree," col 22, lines 15-21) as claimed.

Per claim 38:

The rejection of claim 36 is incorporated. Weinberg further discloses displaying a second window, said second window presenting at least a summary of data from said one or more remote devices (See the displayed Execution Log window in Fig 3A, 4A, and 5F; "FIG. 5F illustrates the execution summary that is provided in a web-based implementation of the testing tool. The execution summary includes a tree representation ... or "report tree" of the test execution in the left pane of the screen," col 17, lines 1-45; see also col 3, lines 11-44; col 11 lines 33-50) as claimed.

6. Claims 4, 9, 12, 17, 21, 25 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weinberg et al. (US Patent 6,587,969), hereinafter referred to as "Weinberg," in view of Applicant's Admitted Prior Art (hereinafter referred to as "APA") disclosed in the instant application and further in view of Jibbe (US patent 6,311,320).

As per claim 4, the rejection of claim 1 is incorporated. Weinberg further discloses that the *machine control sequence has at least one step associated therewith* ("The tree window includes a hierarchical representation of the steps," col 8, lines 54-67; "Each node of the tree generally represents one "step" of the test and is represented with a corresponding icon. The type (image) of the icon provides a visual representation of the type of step," col 9, lines 8-27; "Yet another inventive feature of the

testing tool involves displaying the results of test execution using a hierarchical node structure ("report tree") in which steps of the test are represented by corresponding nodes. When the user selects a node from the report tree, the testing tool automatically displays results (e.g., a returned screen, or results of a verification step) associated with the corresponding step," col 3, lines 29-44; see also col 5, lines 52-65);

However, neither Weinberg nor APA explicitly discloses said at least one step having at least one device associated therewith, said at least one device having at least one command associated therewith.

Jibbe discloses a scripting tool for testing for computer devices for the purpose of ease of testing a variety of computer devices without knowing the scripting language and without requiring a new scripting system (col 1, lines 23-55) and of providing ease view of results of executing a script command with the script command that caused the results (col 2, lines 47-54; "the scripting tool ...stores in the log file...and displays in the status window ...certain status information resulting from execution of the test script (col 7, lines 48-67)" and col 16, lines 19-55).

Therefore, it would have been obvious to a person of ordinary skill in the art to include a list of device in the system of Weinberg and APA so that the list of devices to test can be easily added/removed from the steps and the test results can be easily viewed. The modification would be obvious because testing computer devices can be performed at a high level and analyzing the test results can be done easily as taught by Jibbe (col 2, lines 47-54; col 7, lines 48-67; col 16, lines 19-55).

As per claim 9, the rejection of claim 5 is incorporated. Neither Weinberg nor APA explicitly discloses said detailed information includes a device associated with the displayed command.

However, Jibbe discloses a scripting tool for testing for computer devices for the purpose of ease of testing a variety of computer devices without knowing the scripting language and without requiring a new scripting system (col 1, lines 23-55) and of providing ease view of results of executing a script command with the script command that caused the results (col 2, lines 47-54; "the scripting tool ... stores in the log file... and displays in the status window ... certain status information resulting from execution of the test script (col 7, lines 48-67)" and col 16, lines 19-55).

Therefore, it would have been obvious to a person of ordinary skill in the art to include a list of device in the system of Weinberg and APA so that the list of devices to test can be easily added/removed from the steps and the test results can be easily viewed. The modification would be obvious because testing computer devices can be performed at a high level and analyzing the test results can be done easily as taught by Jibbe (col 2, lines 47-54; col 7, lines 48-67; col 16, lines 19-55).

As per claim 12, the rejection of claim 11 is incorporated. Weinberg further discloses: - a start time and an end time associated with execution of each command that was executed during the iteration associated with the selected iteration number identifier (see Table 4 and 5 (execution log); "The right pane of the execution summary screen displays the report details (preferably as HTML pages) corresponding to the

currently-selected node of the report tree ... When the user selects the root node of the tree a results summary page is displayed in the right pane as shown in FIG. 5F. The summary page includes the date/time of execution and a summary table 82," col 17, lines 20-33)

- information identifying the iteration associated with the displayed command ("Each iteration of the test and the associated steps are presented as nodes of the tree 84. For example, the first test iteration is represented by a first node 81, and details of this iteration can be viewed by expanding this node 81.... The summary page includes the date/time of execution and a summary table 82. Each column in the table 82 corresponds to a screen request or a check, and each row of the table 82 corresponds to an iteration of the test," col 17, lines 1-50; see also Table 4)
- a step associated with the displayed command ("Each iteration of the test and the associated steps are presented as nodes of the tree 84. For example, the first test iteration is represented by a first node 81, and details of this iteration can be viewed by expanding this node 81.... The summary page includes the date/time of execution and a summary table 82. Each column in the table 82 corresponds to a screen request or a check, and each row of the table 82 corresponds to an iteration of the test," col 17, lines 1-50; see also Table 4).

However, neither Weinberg nor APA explicitly discloses a device associated with the displayed command.

Jibbe discloses a scripting tool for testing for computer devices for the purpose of ease of testing a variety of computer devices without knowing the scripting language

and without requiring a new scripting system (col 1, lines 23-55) and of providing ease view of results of executing a script command with the script command that caused the results (col 2, lines 47-54; "the scripting tool ...stores in the log file...and displays in the status window ...certain status information resulting from execution of the test script," col 7, lines 48-67; col 16, lines 19-55).

Therefore, it would have been obvious to a person of ordinary skill in the art to include a list of device in the system of Weinberg and APA so that the list of devices to test can be easily added/removed from the steps and the test results can be easily viewed. The modification would be obvious because testing computer devices can be performed at a high level and analyzing the test results can be done easily as taught by Jibbe (col 2, lines 47-54; col 7, lines 48-67; col 16, lines 19-55).

Weinberg further discloses information indicating whether or not the displayed command was successfully executed ("In one embodiment, special status icons (e.g., a caution symbol) are used to indicate that an error, such as a failed verification step, occurred at lower level of the tree," col 16, lines 60-67; "The final execution log step (step 63) associated with the illustrated verification step 55 indicates a result of the verification step, which is a "verification passed" statement in this example. As may be appreciated, every step of the execution log that is successfully completed has a check mark as part of the corresponding icon. Steps that are not successfully completed have a cross mark as part of the associated icon," col 19, lines 12-31; see also col 3, lines 29-44; col 17, lines 8-45) as claimed.

As per claim 17, it is the method version of claim 4, respectively, and is rejected for the same reasons set forth in connection with the rejection of 4 above.

As per claim 21, it is the method version of claim 8 and 9, respectively, and is rejected for the same reasons set forth in connection with the rejection of 8 and 9 above.

As per claim 25, it is the computer program version of claim 4, respectively, and is rejected for the same reasons set forth in connection with the rejection of 4 above.

As per claim 29, it is the computer program version of claim 8 and 9, respectively, and is rejected for the same reasons set forth in connection with the rejection of 8 and 9 above.

7. Claims 31-33 and 36-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jibbe (US patent 6,311,320) in view of Applicant's Admitted Prior Art (hereinafter referred to as "APA") disclosed in the instant application.

Per claim 31:

Jibbe discloses:

-a processor configured to execute logic configured to generate a graphical user interface (GUI) ("the processor to generate a user input control ...and display the user input control upon the display device," abstract; see Fig 3)

-logic configured to interact with at least one human to machine interface (see Fig 3)

Jibbe does not explicitly teach logic configured to generate commands applied to control systems within one or more remote devices as claimed. APA discloses that it was known in the art of software development and testing, at the time applicant's invention was made, to perform various operations involved with a remote device such as moving tapes to and from drives in order to store backup data from the servers on the tapes, in backup storage systems (page 1 lines 10-20). It would have been obvious for one having ordinary skill in the art of computer software development and testing to modify Jibbe's disclosed GUI scripting tool to include a logic configured to generate commands applied to control systems within one or more remote devices disclosed in APA for the purpose of testing various operations involved with remote devices such as backup storage systems used for servers in a GUI environment. The modification would be obvious because one having ordinary skill in the art would be motivated to test the remote devices such as data storage devices for servers, using the GUI testing tool for a user-friendly form to view and analyze the operation scripts and the execution results, to ensure proper operations of storing backup data from servers (APA, page 1 lines 10-20) in the case of accidental file deletion or system failure.

Jibbe further discloses a display device in communication with said processor, wherein when said processor executes the logic configured to generate the GUI("the processor to generate a user input control ...and display the user input control upon the display device," abstract; see Fig 3)

- a first window is displayed on the display device, said first window presenting at least one option that enables a user to open a file comprising a machine control sequence (Fig 6 and 9)

APA further discloses a machine control sequence configured to move data storage media to and from a media interface (APA, page 1 lines 10-20) as claimed.

Per claim 32:

The rejection of claim 31 is incorporated. Jibbe further discloses said first window presents an option, the selection of which executes the machine control sequence (Fig 9 and12; ""The operation drop-down menu...also provides a user with an interface to trigger script execution commands... the operation drop-down menu...provides menu selections for triggering execution of an execute command," col. 6 lines 51-60) as claimed.

Per claim 33:

the rejection of claim 32 is incorporated. Jibbe further discloses that when said file is opened, a second window is displayed on said display device, said second window displays data resulting from the execution of the machine control sequence ("The view log file command...to display the contents of the log file," col. 5 lines 25-40) as claimed.

Per claim 36:

Jibbe discloses:

-generating a graphical user interface (GUI) having a first window that presents at least one option that enables a user to controllably execute a file comprising a

machine control sequence ("The instructions when executed by the processor cause the processor to generate a user input control for a parameter of the script command based upon a definition file," col. 2 lines 1-16)

Jibbe does not explicitly teach machine control sequence configured to direct one or more remote devices to move data storage media to and from a media interface as claimed. APA discloses that it was known in the art of software development and testing, at the time applicant's invention was made, to perform various operations within a remote device such as moving tapes to and from drives in order to store backup data from the servers on the tapes, in backup storage systems (page 1 lines 10-20). It would have been obvious for one having ordinary skill in the art of computer software development and testing to modify Jibbe's disclosed GUI scripting tool to include machine control sequence configured to direct one or more remote devices to move data storage media to and from a media interface disclosed in APA for the purpose of testing various operations involved with remote devices such as backup storage systems used for servers in a GUI environment. The modification would be obvious because one having ordinary skill in the art would be motivated to test the remote devices such as data storage devices for servers, using the GUI testing tool for a user-friendly form to view and analyze the operation scripts and the execution results, to ensure proper operations of storing backup data from servers (APA, page 1 lines 10-20) in the case of accidental file deletion or system failure.

Jibbe further discloses upon detecting a selection of said at least one option by the user, executing the machine control sequence ("the processor receive user input via

the user input control... execute the script command based upon the parameter," abstract) as claimed.

Per claim 37:

The rejection of claim 36 is incorporated. Jibbe further discloses

-upon detecting execution of the machine control sequence, collecting data from said one or more remote devices ("the scripting tool ... stored in the log file," col. 7 lines 48-55) as claimed.

Per claim 38:

The rejection of claim 37 is incorporated. Jibbe further discloses displaying a second window, said second window presenting at least a summary of data from said one or more remote devices ("The status window... is operable to display status information... resulting from execution of script commands," col. 7 lines 30-47) as claimed.

8. Claims 34 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jibbe (US patent 6,311,320), in view of Applicant's Admitted Prior Art (hereinafter referred to as "APA") disclosed in the instant application and further in view of Weinberg et al. (US Patent 6,587,969) hereinafter referred to as "Weinberg,"

Per claim 34:

Neither Jibbe nor APA discloses that the data resulting from the execution of the machine control sequence comprises a summary of information from the one or more

remote devices. However, Weinberg teaches that it was known in the art of software development and testing, at the time applicant's invention was made, to view the overall execution results without details.

It would have been obvious for one having ordinary skill in the art of computer software development and distribution to modify the scripting tool of Jibbe's and APA to include summary information of the execution. The modification would be obvious because one having ordinary skill in the art would be motivated to view the overall information resulting from the execution as thought by Weinberg (See the displayed Execution Log window in Fig 3A, 4A, and 5F; "FIG. 5F illustrates the execution summary that is provided in a web-based implementation of the testing tool. The execution summary includes a tree representation ... or "report tree" of the test execution in the left pane of the screen," col 17, lines 1-45; see also col 3, lines 11-44; col 11 lines 33-50).

Per claim 35:

The rejection of claim 34 is incorporated. APA further discloses the one or more remote devices comprise devices configured to house and manipulate data storage media (page 1 lines 10-20) as claimed.

Response to Arguments

9. Applicant's arguments with respect to claims 1-38 have been considered but are moot in view of the new ground(s) of rejection.

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Insun Kang whose telephone number is 703-305-6465. The examiner can normally be reached on M-F 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on 703-305-9662. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

IK
7/20/2004

ANIL KHATRI
PRIMARY EXAMINER